IN THE CLAIMS:

Please cancel claims 7-17, 29, 31-41 and 43-45, without prejudice or disclaimer. Please add the following new claims:

46. (New) An isolated nucleic acid which encodes human (SEQ ID NO: 14), mouse (SEQ ID NO:16), *D. melanogaster* (SEQ ID NO:18), or *C. elegans* (SEQ ID NO:12) presenilin associated membrane protein (PAMP).

47. (New) The isolated nucleic acid of claim 46, which encodes human PAMP (SEQ ID NO:14).

48. (New) The isolated nucleic acid of claim 46, which comprises the coding sequence of human (SEQ ID NO:13), mouse (SEQ ID NO: 15) *D. melanogaster* (SEQ ID NO: 17), or *C. elegans* (SEQ ID NO: 11) PAMP.

49. (New) The isolated nucleic acid of claim 48, which comprises the coding sequence of human PAMP (SEQ ID NO:13).

50. (New) A vector comprising the nucleic acid of claim 46, operatively associated with an expression control sequence.

51. (New) An isolated cell transfected with a vector comprising a nucleic acid encoding a PAMP, and an expression control sequence operatively associated with said nucleic acid, wherein said PAMP is capable of interacting with a presenilin.

52. (New) The isolated cell of claim 51, wherein the nucleic acid encodes human (SEQ ID NO: 14), mouse (SEQ ID NO:16), *D. melanogaster* (SEQ ID NO:18), or *C. elegans* (SEQ ID NO:12) PAMP.

53. (New) The isolated cell of claim 52, wherein the nucleic acid comprises the coding sequence of human (SEQ ID NO:13), mouse (SEQ ID NO: 15) *D. Melanogaster* (SEQ ID NO: 17), or *C. elegans* (SEQ ID NO: 11) PAMP.

54. (New) A method for producing PAMP, which method comprises culturing the cell of claim 51 under conditions that permit expression of the PAMP.

55. (New) An isolated nucleic acid encoding a mutant human PAMP, wherein the corresponding wild-type PAMP is capable of interacting with a presenilin protein.

56. (New) The isolated nucleic acid of claim 55, wherein the mutant PAMP has a mutation in an amino acid residue corresponding to an amino acid selected from

the group consisting of C230, D336, Y337, and both D336 and Y337, of human PAMP (SEQ ID NO:14).

57. (New) The isolated nucleic acid of claim 56, wherein the mutation is selected from the group consisting of C230A, D336A, Y337A, and both D336A and Y337A.

58. (New) The isolated nucleic acid of claim 55, wherein the mutant PAMP has a deletion of an amino acid sequence corresponding to an amino acid sequence selected from the group consisting of Δ312-369 and Δ312-340 of human PAMP (SEQ ID NO:14).

59. (New) A vector comprising the nucleic acid of claim 55, operatively associated with an expression control sequence.

60. (New) An isolated cell transfected with a vector comprising a nucleic acid encoding a mutant PAMP, and an expression control sequence operatively associated with said nucleic acid.

61. (New) A method for producing mutant PAMP, which method comprises culturing the cell of claim 60 under conditions that permit expression of the mutant PAMP.

62. (New) An isolated cell transfected with a vector comprising a nucleic acid encoding a human PAMP, and an expression control sequence operatively associated with said nucleic acid, wherein said human PAMP is capable of interacting with a presenilin.

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63. (New) The isolated cell of claim 62, wherein the nucleic acid encodes SEQ ID NO: 14.

64. (New) The isolated cell of claim 62, wherein the nucleic acid comprises the coding sequence of SEQ ID NO:13.

65. (New) A method for producing human PAMP, which method comprises culturing the cell of claim 62 under conditions that permit expression of the human PAMP.